

Amendments to the Claims

1. (Previously presented) A method of determining blood flow in a conduit, comprising compensating for an injectate induced thermal offset of a thermal dilution sensor connected to a catheter, the compensating including one of (i) pre-calibrating a thermal property of the catheter or the thermal dilution sensor; (ii) determining a calibration coefficient for the catheter and (iii) determining a thermal transfer coefficient for the catheter.

2. (Previously presented) A method of determining blood flow in a conduit, comprising compensating for an injectate induced thermal offset of a thermal dilution sensor connected to a catheter by pre-calibrating a thermal property of the catheter.

3. (Previously presented) The method of Claim 2, wherein pre-calibrating a thermal property of the catheter includes determining a thermal transfer coefficient  $K_i$ , such that  $K_i = \frac{\Delta T_i}{(T_b - T_i)}$ ; where  $T_b$  corresponds to the temperature of the blood,  $T_i$  corresponds to the temperature of the injectate and  $\Delta T_i$  is the change in the thermal dilution sensor temperature from the injectate induced cooling.

4. (Cancelled).

5. (Cancelled).

6. (Cancelled).

7. (Cancelled).

8. (Cancelled).

9. (Cancelled).

10. (Previously presented) The method of Claim 1, wherein compensating for an injectate induced thermal offset of a thermal dilution sensor includes thermally insulating the thermal dilution sensor from the injectate prior to introduction of the injectate into the blood flow in the conduit.

11. (Previously presented) A method of determining a blood flow in a conduit, the method comprising:

- (a) passing an injectate through a lumen in a catheter, the passing injectate inducing a measurement offset in a blood parameter sensor; and
- (b) compensating for the measurement offset of the blood parameter sensor by one of (i) pre-calibrating a thermal property of the catheter or the blood parameter sensor; (ii) determining a calibration coefficient for the catheter and (iii) determining a thermal transfer coefficient for the catheter.

12. (Previously presented) A method of determining a blood flow in a conduit, the method comprising:

- (a) passing an injectate through a lumen in a catheter, the passing injectate inducing a measurement offset in a blood parameter sensor; and
- (b) compensating for the measurement offset of the blood parameter sensor by pre-calibrating the blood parameter sensor.

13. (Cancelled).

14. (Previously presented) A method of determining a blood flow in a conduit, the method comprising:

- (a) passing an injectate through a lumen in a catheter, the passing injectate inducing a measurement offset in a blood parameter sensor; and
- (b) compensating for the measurement offset of the blood parameter sensor by adjusting a measured parameter by a calibration coefficient.

15. (Cancelled).

16. (Original) The method of Claim 11, wherein compensating for measurement offset includes thermally isolating the blood parameter sensor from the injectate passing through the lumen in the catheter.

17. (Cancelled).

18. (Previously presented) A method of thermodilution measurement of blood flow rate by a catheter, the method comprising:

- (a) identifying a thermal transfer coefficient for the catheter; and

(b) adjusting a thermal dilution sensor measurement by an amount corresponding to the thermal transfer coefficient.

19. (Original) The method of Claim 18, further comprising relating the thermal transfer coefficient to one of a temperature of the blood flow, a temperature of an injectate, a rate of flow of the injectate and the blood flow rate.

20. (Cancelled).

21. (Cancelled).

22. (Cancelled).

23. (Cancelled).

24. (Cancelled).

25. (Cancelled).

26. (Original) The method of Claim 1, further comprising determining a calibration coefficient for the catheter.

27. (Original) The method of Claim 26, further comprising adjusting the calibration coefficient in response to a blood flow rate in the conduit or an injection rate of the induced injectate.

28. (Original) The method of Claim 26, further comprising increasing the calibration coefficient in response to a reduced blood flow rate.

29. (Original) The method of Claim 26, further comprising decreasing the calibration coefficient in response to an increased blood flow.

30. (Previously presented) The method of Claim 1, further comprising disposing the catheter in a retrograde orientation in the conduit.

31. (Previously presented) The method of Claim 2, further comprising disposing the catheter in a retrograde orientation in the conduit.

32. (Previously presented) The method of Claim 11, further comprising disposing the catheter in a retrograde orientation in the conduit.

33. (Previously presented) The method of Claim 12, further comprising disposing the catheter in a retrograde orientation in the conduit.

34. (Previously presented) The method of Claim 14, further comprising disposing the catheter in a retrograde orientation in the conduit.

35. (Previously presented) The method of Claim 18, further comprising disposing the catheter in a retrograde orientation in the conduit.

36. (Cancelled).

37. (Cancelled).

38. (Cancelled).